



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,146	12/31/2003	Stephen Dana Bjorgan	246437US67	6869

22850 7590 02/06/2007  
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

ORR, HENRY W

ART UNIT	PAPER NUMBER
----------	--------------

2176

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/748,146

Applicant(s)

BJORGAN ET AL.

Examiner

Henry Orr

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/31/03, 4/10/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This action is responsive to application communication filed December 31, 2003.
2. Claims 1-5 are pending in the case. Claim 1 is an independent claim.

### *Information Disclosure Statement*

3. The information disclosure statement (IDS) submitted on 12/31/2003 and 4/10/2006 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner is considering the information disclosure statements.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 2 recites the limitation "**the first virtual interface comprises a keyboard interface in a first language and the second virtual interface comprises a**

**keyboard interface in a second language".** However, the applicant specification lacks written support for the limitation recited in claim 2.

**6. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 1 recites the phrase "**a user**" in line 9. There is insufficient antecedent basis for this limitation in the claim because it is unclear whether "**a user**" in line 9 is referring to previously recited "**a user**" in the preamble of claim 1. Examiner suggest to applicant to replace "**a user**" in line 9 of claim 1 with "**the user**" to overcome rejection.

Dependent claims 2-5 are rejected for fully incorporating the deficiency of base claim 1.

### ***Claim Rejections - 35 USC § 102***

**7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:**

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. **Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Torunoglu et al. (hereafter referred to as Torunoglu), U.S. Published Application #2003/0174125 A1 of record.**

Regarding claim 1, Torunoglu teaches **“the system of the invention projects input guides for two or more modes simultaneously” (par. 24).** (claim; i.e., a projection unit for projecting) Examiner interprets the system in Figure 1a to illustrate a projector that projects an input guide. (see Ref.#110 in Figure 1a)

Torunoglu also teaches **“the sensing device of the invention detects whether a user appears to be tapping (as one would interact with a keyboard) or gliding across the work surface (as one would interact with a mouse)” (par. 23).** (claim 1; i.e., a first virtual interface including at least one of a virtual keyboard, a virtual mousepad and at least one virtual mouse button and (2) a second virtual interface including at least one of a virtual keyboard, a virtual mousepad and at least one virtual mouse button to be displayed in place of at least a portion of said first virtual interface; a motion sensor for determining a position on the first and second virtual interfaces that is interacted with by a user;) Examiner interprets the keyboard as a potential first virtual interface and the mouse as a potential second virtual interface. Figure 7 illustrates the mouse pad interface and par. 85 teaches mouse buttons that can be displayed with the mouse.

Torunoglu further teaches **“CPU 104 communicates with device 101 via any known port 101 via any known port 102 or communication interface” (par. 44).**

(claim 1; i.e., a communications controller for communicating the position on the first and second virtual interfaces outside of the user-input interface; Examiner interprets the port as a communications controller. (see Ref. # 102 in Figure 2)

Lastly, Torunoglu teaches **“a number different mechanisms for commanding a mode switch may be provided” (par. 54).** (claim 1; i.e., a controller for controlling the projection unit to switch from the first virtual interface to the second virtual interface. ) Examiner interprets the mechanism as anticipating a controller because the mechanism function is to control when the projection unit switch modes. Each mode is interpreted to be an input virtual interface as taught in par. 23.

Regarding claim 2, Torunoglu teaches **“guide 203A has a layout resembling a standard QWERTY keyboard for entering text” (par. 46).** (claim 2; i.e., wherein the first virtual interface comprises a keyboard interface in a first language) Examiner interprets the Qwerty layout keyboard to be a US-style keyboard, which is capable of representing the English language.

Torunoglu further teaches **“a numeric virtual keyboard mode can be activated when the context of the user interaction dictates that numeric input is expected” (par. 61).** (claim 2; i.e., and the second virtual interface comprises a keyboard interface in a second language.) Examiner interprets the numeric virtual keyboard as containing numbers, which is capable of representing computer binary language.

Regarding claims 3 and 4, Torunoglu teaches **“Two or more input modes can be implemented in a sensing device by providing separate detection areas for each input mode. Thus, a mouse area and a keyboard area might be defined,**

**possibly having separating sensing apparatus for each (par. 48).** (claim 3; i.e., wherein the first virtual interface comprises a keyboard interface and the second virtual interface comprises a mousepad.) (claim 4; i.e., wherein the first virtual interface comprises a keyboard interface and the second virtual interface comprises a mousepad and at least one mouse button.) Examiner considers when two or more input modes are displayed, a first and second virtual interface as recited in claims 3 and 4 is illustrated as taught by Torungolu. Figure 7 illustrates the mouse pad interface and par. 85 teaches mouse buttons that can be displayed with the mouse.

Regarding claim 5, Torunoglu's **Figure 5 displays a telephone button that can be used with the numeric virtual keyboard as taught in par. 61.** (claim 5; i.e., further comprising a telephone interface for communicating by phone between the user and a remotely located telephone customer.) Examiner considers the numeric keyboard in addition to the telephone button are together capable of serving as a telephone interface as recited in claim 5.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Orr whose telephone number is (571) 274 1308. The examiner can normally be reached on Monday thru Friday 8 to 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on (571) 272-4136. The fax phone

Art Unit: 2176

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Henry Orr  
Examiner  
Art Unit 2176

1/29/2007  
HO

*Henry Orr*

*H. Herndon*  
Heather R. Herndon  
Supervisory Patent Examiner  
Technology Center 2100